

thought that products of other manufacturers who produced spandex containing mercaptobenzothiazole were responsible for the allergic reaction to spandex garments. Since 1967 it has become very evident that this is not the case and even though the products listed above contain none of the offending mercaptobenzothiazole one still sees the burning, itching, eczematous rash tracing the specific outline of the spandex bra. These reactions are especially severe if the new spandex bra or girdle is worn on an evening when the patient had alcoholic drinks.

This old nucleus, the polyurethane nucleus, is still very much with us and when one sees dermatitis on the area covered by a brassiere or girdle one is well advised to read the label and look for the word "spandex."

J. BLAIR PACE, MD

REFERENCES

- Carr RD: Case 5 dermatitis review. Resident Staff Physician 18: 17, Nov 1972
 Fisher AA: Allergic contact spandex dermatitis. Arch Dermatol 96:607-608, Nov 1967
 Shelley WB: Golf-course dermatitis due to thiram fungicide. JAMA 188:415-417, May 4, 1964

Health Hazard Appraisal— Prospective Medicine

A NEW AID in patient care that evaluates the risk of an illness before it strikes has been developed and is called "health hazard appraisal." This method is one of the newer developments in medicine's continuing attempt to carry preventive medicine into the prospective field.

In several areas of the country, methods have been developed for using a computer to evaluate a patient's risk of disease. The data obtained can be discussed with the patient so that he may determine the desirability of changing his life style to decrease the risk of the more common causes of death.

The patient's personal physician takes the information (which includes physical findings, laboratory findings and a health questionnaire that surveys family history and personal habits) and this is entered into a computer. The individual's risk factors are determined and outlined in such a manner that the patient may determine his life expectancy with his current risk. The patient is also given an estimate of the additional life expectancy he would have if he corrected the correctable factors.

This computerized technique is now available

to any physician who desires it through laboratories throughout the country.

Prospective medicine is merely another way in which the modern physician may be able to increase the longevity of his patients and attempt to truly prevent illness.

SIMON BRUMBAUGH, JR, MD

REFERENCES

- LaDou J: Health Hazard Appraisal. Presented at the NASA Medical Director's Meeting, San Antonio, Oct 16-18, 1973
 Sadusk J, Robbins LC: Proposal for health hazard appraisal in comprehensive health care. JAMA 203:1108-1112, Mar 25, 1968

Cromolyn in the Prevention and Treatment of Asthma

CROMOLYN SODIUM (Intal®, Aarane®) is a recently approved antiasthmatic drug which has now been released for general prescription use in the United States. This drug has a mechanism of action unlike any previously used mode of antiasthmatic therapy. Cromolyn sodium (CS) has been in general use in Europe for several years and in Great Britain since 1968. It appears useful in the prevention of asthmatic attacks, especially pollen allergy asthma which comes on a seasonal basis. Cromolyn is administered as a dry powder, combining twenty milligrams of cromolyn sodium and twenty milligrams of lactose in a capsule. A special inhalation device permits inhalation of the powder in about five or six deep breaths. Administration is one capsule four times a day at regular intervals. The drug cromolyn is not of great use in the treatment of established asthmatic attacks and has no bronchodilator effect. Its mode of action is generally conceded to be by stabilizing the membrane of the mast cells in the bronchial wall. This blocks the antigen-antibody release of histamine by preventing disruption of these mast cells.

Effectiveness of CS can be demonstrated by pretreatment with inhalations of powder and then challenge, using pollens known to produce asthma in a given patient. The most startling effectiveness of the drug has been in young asthmatics with relatively little element of infection and with severe restriction of exercise tolerance. CS seems to prevent the usual delayed asthma attack from prolonged exercise and many of the treated children are released for full participation in games and running by the administration of the protective medication.

The second and very promising use of cromolyn

is in the reduction or elimination of the need for corticosteroids. CS has no steroid effects and in the years since 1965, when clinical trials began, it has shown a minimum of undesirable side-effects.

In certain instances it has released life-long asthmatics in their mid-twenties from being severely restricted in all activities, caused a complete absence of asthma symptoms and allowed numerous physical activities which were heretofore impossible. CS may offer great hope for the young asthmatic whose lungs have not sustained the damage of years of repeated asthmatic attacks. There is the possibility of delaying or even preventing lung damage as the patient becomes older and continues therapy.

Principal noted side-effects of CS have been an occasional complaint of rawness and irritability of the pharynx and trachea in a few patients. An occasional patient is intolerant to the inhalation of the dust, either when a placebo of plain lactose is used or when the effective agent combining lactose and cromolyn is used.

The cost of the material is sufficient to discourage random or inappropriate use. The poorest results from the use of this agent would appear to be in patients with chronicity and with a large element of infection involved. It, in other words, does not appear to be an effective treatment for asthmatic bronchitis.

CHARLES CRONIN, MD

REFERENCES

Goodman DH, Wert AD, Anand SC, et al: Cromolyn sodium in the treatment of grass pollen asthma. *Ann Allerg* 30:258-261, May 1972

Burgher LW, Elliott RM, Cass I: Clinical investigations—A perspective on the role of cromolyn sodium as an antiasthmatic agent. *Chest* 60:210-213, Sep 1971

Intravenous Regional Anesthesia

ALTHOUGH INTRAVENOUS REGIONAL ANESTHESIA has been in limited use for a number of years, it has recently received increasing recognition as a safe, effective and simple procedure. A regional block of an extremity distal to a tourniquet is produced following the intravenous injection of a local anesthetic into an exsanguinated limb.

This technique is seeing more common use by family physicians, emergency care physicians, surgeons and orthopedists. It is particularly useful in surgical operation or manipulations of the upper or lower extremities. It may be indicated for procedures involving the extremities lasting less than one and three-quarters hours, when general anes-

thesia is contraindicated (such as by recent ingestion of a meal) or when an anesthesiologist is unavailable for emergency procedures. This procedure has several advantages over other anesthetic approaches: it is easier to do than other regional nerve blocks, it is rapid in onset and generally effective, lower anesthetic blood levels are achieved using it than with lumbar epidural or axillary blocks, the recovery time is short and complications are both infrequent and readily managed if meticulous attention is given to proper technique.

JOHN GEYMAN, MD

REFERENCES

Boyd WA, Robinson JG: Intravenous regional anesthesia. *J Family Pract* 1:60-63, Jan 1974

Costley DO, Torhan P: Intravenous regional anesthesia. *Arch Surg* 103:34, Jul 1971

Enteropathogenic Escherichia Coli (EPEC) in Infants' and Travelers' Diarrhea

E. COLI are normal inhabitants of the bowel. More than twenty different enteropathogenic serotypes are now classifiable at many local laboratories. Several are incriminated in lethal diarrhea in infants and enteropathogenic strains often cause travelers' diarrhea, more commonly known as "turista." Evidence continues to mount associating EPEC with most cases of "turista" but no large scale study has yet been conclusive. Eighty percent of all acute diarrhea in some hospitals is so-called "non-specific" diarrhea. Therefore, some investigators believe that E. coli is actually responsible for most acute diarrheal diseases.

EPEC has two different reactions on the gut. It can produce an enterotoxin, which is actually an exotoxin with a cholera-like virulence and activity on the small bowel. This causes enterosorption (a passage of fluid and electrolytes into the lumen of the intestine). EPEC also may react by direct invasion of the cells of the mucosa and produce a Shigella-like diarrhea, affecting the colon.

The toxins of E. coli are at least as potent as cholera toxins but much less antigenic. Unlike cholera, EPEC causes poor antibody response, and this may explain the frequent recurrences in the same patient. Multiple type-specific bacterial vaccines, against all the enteropathogenic serotypes, would be impractical, especially when the possibility of the emergence or discovery of new enteropathogenic serotypes is considered. The best